

DURMA

PLASMA

Performance Plasma Cutting Machines



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High performance Durma plasma cutting machines are designed to cut a wide range of mild steel, stainless steel and aluminum. The equipments used are the best worldwide brands which ensures the best system development. The high positioning speeds, accelerations and automatic torch high control allow the best quality cutting and efficiency.



Automatic Gas Console

- Supports all processes for HPR systems (130 A,260 A).
- Improved productivity due to less time loss for cut to cut cycle or cut to mark cycle.
- All processes cut consistently with longer consumable life.
- Easy to use operator panel and more productive interface:
- Users will have the ability to turn power on/off at the CNC.

All plasma parameters will be adjustable at the CNC including: current; plasma pre-flow and cut-flow; shield pre-flow and cut-flow; and gas type.

Serial interface to HyPerformance auto gas will also enable diagnostic and monitoring capability with the display of many elements: line voltage; chopper current; work lead current; system status; chopper, transformer and coolant temperatures; coolant flow; and pressure transducer readings.

The Standart Plasma Cutting Application



DURMA plasma cutting series, are available from 1500 mm X 3000 mm, to 3000 mm X 12000 mm cutting dimensions. Special customer requests for cutting dimensions are also possible. The cutted material is on the special work table. While the double side, precision rack/pinion are guiding Y1-Y2 base X gantry bridge with movable cutting plasma torch performs the cutting. The bridge is also equipped with precision rack/pinion system and guiding. The machine structure is welded stress relieved heavy duty frame. Synchronised double side backlash free drive system with high accuracy planet gears allow high cut quality.



Plasma Power Source

DURMA plasma cutting series are equipped with HPR130 and HPR 260 Hypertherm high performance source. It contains the circuitry to ignite the torch, a heat exchanger and pump to cool the torch. The power supply has a serial interface to provide communication with a CNC controller. HPR 260 is capable to cut mild steel dross free 38 mm, edge starts (severance) 60 mm. The system also provides high quality cutting for stainless steel and Aluminium. The original torch design, command torch height control, and suitable gas parameters increase the cut quality as well.

Dross -free cutting 38 mm , edge cutting max 60mm .

Power supply 400 V,

Frequency 50Hz

Output current 150 A

Output voltage 175 V

Duty cycle 100% , 45.5 Kw

Output current 30-260 A - Steel

30-260 A - Stainless

30-260 A -Aluminum

Plasma gas - O₂ , air, F5, H35,

Shield gas - air , N₂,



CNC Control Unit

CNC Control is Promotional CNC Windows XP based industrial PC or EDGE II –Hypertherm with all standard features available. CNC sw, the ultimate intelligent software package: parametric macroshapes, direct CAD –dxg input, true automatic nesting and re-nesting, remnant tracking bridging and chain, to reduce multiple pierces, real time statistics, remote control. The operator interfaces are easy to use and its userfriendly design makes it to be accepted from the operators even with no high level of education. Parametric adjustments, programming saving can be performed and be ready for use. The memory capacity is almost unlimited, and several types of materials, thicknesses and cutting methods are loaded by default



Torch High Control

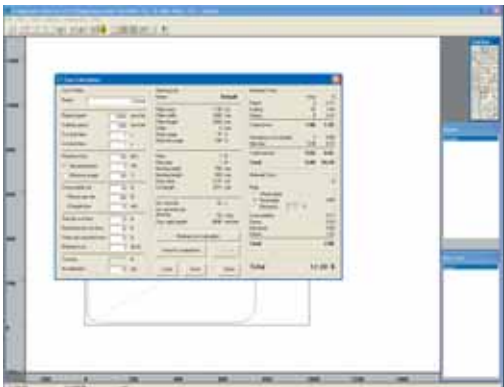
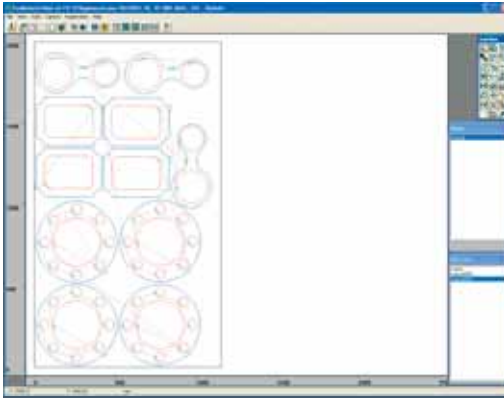
Hypertherm's X-Y Command THC is a torch height control (THC) system designed for plasma cutting applications on an X-Y cutting table. The system uses the plasma arc voltage to control the physical stand-off (distance) between the torch and workpiece during plasma arc cutting. Initial height sensing (IHS) is accomplished by ohmic contact sensing or by a limited force stall detection method. Other properties include:

Max. speed	5 m/min.
Working height	200 mm
CNC controlled arc voltage	
Max. control accuracy	0.5 volt
Regulation	50-300 volt DC
Height control accuracy	0.1 mm



Oxy-fuel Torch and Related CNC Control s/m. (Optional)

An oxy-fuel Torch can be adapted if preferred to the plasma cutting machine and be used interchangeably on the same work table.



CNC EDGE II or PROMOTION iCNC and Software

- Parametric macro shapes
- Direct CAD –DXF input
- DXF,EIA,ESSI , DSTV input
- Automatic nesting and re-nesting
- Nesting,bridging,chain ,piercing
- Automatic input/output regulations
- Remote control
- Possibility to work with external software
- Control panel with flat wide and light screen 12”TFT SVGA
- Speed potentiometer
- Joystic
- Ethernet – modem
- Minimum 10Gb Hard disc,
- 3.5 ” 1.44 Mb flopy drive
- Hypernest AutoNesting software



Cutting Table Filter and Fume Exhaust System

The cutting tables construction is providing the evacuation of the proses gases out of the work area . Before leaving those gases to the atmosphere the filtration is necessary to be done .Our suppliers on such type of equipments are Kemper , Keller , Donaldsson

Standard Equipment

- Plasma power source - Hypertherm
- Automatic gas consol and Metering valf consol - Hypertherm
- Plasma ignition consol - Hypertherm
- Command Torch High Control - Hypertherm Command-THC
- Hypertherm CNC EDGE-II or Promotion I CNC Control unit
- Two side motion contro system (low backlash reducers + rack / pinion)
- AC Digital Servomotors
- Fixed CNC control panel
- Movable Operator Pendant Panel
- Sofware "Hypernest" Manuel and automatic nesting
- Marking system
- CNC control outputs/inputs for filter unit
- Spare parts ,consumables starting kit
- Cutting plate alignment function
- High mechanical accuracy to +- 0,1 mm
- Axis positioning speed 35 m/min.
- Torch height control travel with ballscrew on dual linear guides
- Cutting table, independent from movement mechanism, designed for heavy duty works with special suction system.
- Windows based CNC unit

Optional Equipment

- Plasma Torch brake away system
- Filter
- Additional plasma torch (Plasma Torch, Torch High Control (THC), Ignition consol, Automatic Gas consol)
- HPR 130 Plasma power source for add. Plasma torch
- HPR 260 Plasma power source for add. Plasma torch
- MAX 200 Plasma Power Source for Stainless Steel
- Additional Oxy-fuel Torch (Oxy -fuel torch, Oxy torch high control, Oxy torch high sensor) (max. 2 oxy torch)
- Vovager CNC III - Hypertherm (for plazma+oxy cut CNC Control Unit) add. Cost
- Promotion (for plasma+oxy cut CNC contyrol Unit) add. Cost
- Arcwriter - HD, HT Series
- Preparation for additional torch ,and length adaptation (max. 4 m)
- Manuel torch tilting system
- Remote control diagnostic (Ethernet)
- Cost Calculator Software Module (only Promotion I CNC)
- Scrap cutting module (only Promotion I CNC)
- Feed Rate
- THC Opr. Pendant
- Pronest Software
- Safety lighth barrier
- Fault and Program end signal lamp
- Cutting plate alignment function (Laser Pointer)
- Remote control option on large tables
- Drawing of the Cutting Table

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SPECIFICATIONS

Maximum Positioning speed X / Y	m/min	40
Maximum Cutting speed	m /min.	12
Maximum Cutting capacity (Mild Steel) Edge/Quality	mm	38/16
Positioning accuracy	mm	+/-0.1
Repeatability	mm	0.05
Plasma power source	HPR 130	Hypertherm
Output current	A	130
Current regulation range	A	30-130
Gas console -Manual	-	O2,N2,H35,F5, Air
Gas console -Automatic	Optional	O2,N2,H35,F5, Air
Cutting angle	degree	2-4
Plasma gas	-	O2,N2,H35,F5, Air
Plasma shield gas	-	O2,N2, Air,H35,
Plasma torch	Hypertherm	Hypertherm
Plasma torch number	pcs	1
Torch high control	Command THC	Hypertherm
Ignition box	Ignition box	Hypertherm
Break touch safety	-	Hypertherm
Torch water cooling	-	Hypertherm
Dust evacuation and filtering	Kemper	Kemper
System Motors	-	Kollmorgen/Siemens
Electrical Equipment	-	Siemens or Telemecanique
CNC control	EDGE II	Hypertherm
Software	HyperNest	Hypertherm
Network Card	Optional	
Modem	Optional	

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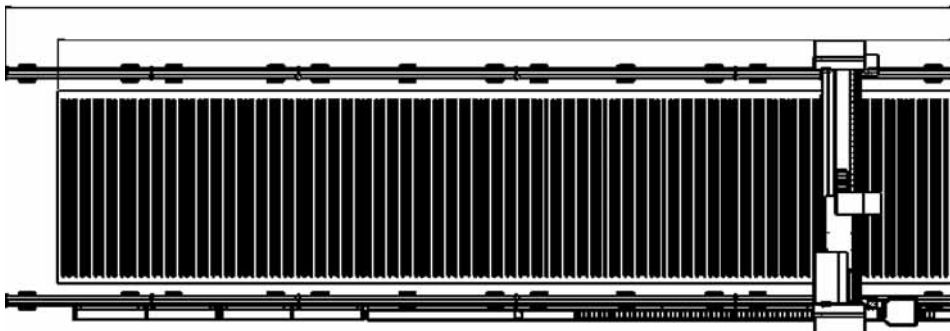
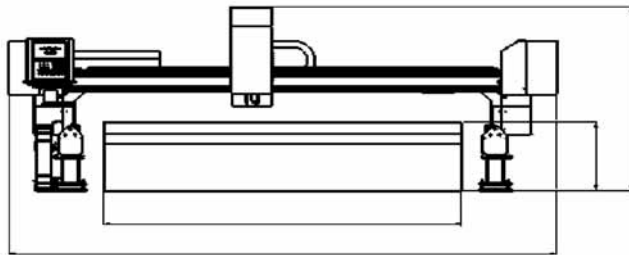
SPECIFICATIONS

Maximum Positioning speed X / Y	m/min	40
Maximum Cutting speed	m /min.	12
Maximum Cutting capacity (Mild Steel)	mm	38
Positioning accuracy	mm	+/-0.1
Repeatability	mm	0.05
Plasma power source	HPR 260	Hypertherm
Output current	A	260
Current regulation range	A	30-260
Gas console -Manual	-	O2, N2, H35, F5, air
Gas konsole -Automatic	Optional	O2, N2, H35, F5, air
Cutting angle	degree	2-4
Plasma gas	-	O2, N2, H35, F5, air
Plasma shield gas	-	O2, N2, air, H35,
Plasma torch	Hypertherm	Hypertherm
Plasma torch number	pcs	1
Torch high control	Command THC	Hypertherm
Ignition box	Ignition box	Hypertherm
Break touch safety	-	Hypertherm
Torch water cooling	-	Hypertherm
Dust evacuation and filtering	Kemper	Kemper
System Motors	-	Kollmorgen/siemens
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Software	HyperNest	Hypertherm
Network Card	Optional	
Modem	Optional	

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MACHINES

	MACHINE LENGHT (A)	MACHINE WIDTH (B)	MACHINE HEIGHT (C)	TABLE HEIGHT (D)	MACHINE CUTTING WIDTH (E)	MACHINE CUTTING LENGHT (F)
PL 2040	5150	3750	1900	700	2100	4100
PL 2060	7150	3750	1900	700	2100	6100
PL 2080	9150	3750	1900	700	2100	8100
PL 20100	11150	3750	1900	700	2100	10100
PL 20120	13150	3750	1900	700	2100	12100
PL 2540	5150	4250	1900	700	2600	4100
PL 2560	7150	4250	1900	700	2600	6100
PL 2580	9150	4200	1900	700	2600	8100
PL 25100	11150	4250	1900	700	2600	10100
PL 25120	13150	4250	1900	700	2600	12100
PL 3060	7150	4750	1900	700	3100	6100
PL 3080	9150	4750	1900	700	3100	8100
PL 30100	11150	4750	1900	700	3100	10100
PL 30120	13150	4750	1900	700	3100	12100
PL 30140	15150	4750	1900	700	3100	14100
PL 3580	9150	5250	1900	700	3600	8100
PL 35100	11150	5250	1900	700	3600	10100
PL 35120	13150	5250	1900	700	3600	12100
PL 35140	15150	5250	1900	700	3600	14100
PL 4080	9150	5750	1900	700	4100	8100
PL 40100	11150	5750	1900	700	4100	10100
PL 40120	13150	5750	1900	700	4100	12100
PL 40140	15150	5750	1900	700	4100	14100



DURMA

Durmazlar Makine San. ve Tic. A.Ş.

OSB 75.Yıl Bulvarı, Bursa / Türkiye
Tel.: ++90 224 219 18 00 (pbx)
Fax: ++90 224 242 75 80 (sales)

www.durmazlar.com.tr
e-mail: durma@durmazlar.com.tr
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